

Listing of Claims:

Claim 1 (Currently amended): A device for adjusting rotation angles, ~~in particular of electrical rotary switches (1), having comprising~~ a stator (2), which has a receptacle (8) which is open on one side (6) and is approximately in the form of a pot, ~~having~~ a rotor (3) which is mounted on the stator (2) such that ~~it can the rotor rotates in the stator~~ receptacle (8) as a rotary bearing, such that the rotor (3) can be moved between at least two rotation angle positions, ~~having~~ a magnet (4), which ~~can be moved moves~~ by means of the rotor (3), and ~~having~~ a magnetic field sensor (5), ~~which is associated with the magnet (4), in order to produces~~ a signal in association with the magnet, which ~~signal~~ corresponds to the rotation angle position, ~~wherein 1)~~ the magnetic field sensor (5) ~~being~~ is arranged in the ~~stator~~ receptacle (8) on the stator (2) and/or ~~is~~ on a part which is mounted in the stator (2), such that the stator (2) acts as a mount for the magnetic field sensor (5), ~~2) characterized in that~~ the magnet (4) is arranged on the rotation axis of the rotor (3), ~~in that and 3) the magnetic field sensor (5) is in the form of a Hall sensor, [-] which is two-dimensionally sensitive for magnetic fields parallel to its chip surface, and in that the magnetic field sensor (5) is mounted on that the side (7) of the ~~stator~~ receptacle, (8) which faces away from the open side (6), [lacuna] lower face of the stator (2) which is located [lacuna].~~

Claim 2 (Currently amended): The device for adjusting rotation angles as claimed in claim 1, ~~characterized in that wherein at least one of~~ the stator (2) and the rotor ~~comprises~~ (3) ~~are/is~~ composed of plastic, ~~, in particular of a thermoplastic, for example of polyamide, in that the stator (2) and/or the rotor (3) are/is preferably produced as an injection molded part, and in that, furthermore, the magnet (4) is preferably in the form of a cylindrical permanent magnet which is magnetized two-dimensionally, diametrically~~

Claim 3 (Currently amended): The device for adjusting rotational angles as claimed in claim 1 ~~wherein the rotor (3) is located essentially, in particular completely in the stator~~ receptacle (8) such that a surface (25) of the ~~stator~~ receptacle, (8) which is located in interior of the stator (2) acts as a rotating bearing, ~~and in that latching elements (26) preferably interact between the stator (2) and the rotor (3) such that the rotor (3) is secured in the receptacle (8) such that it can not fall out.~~

Claim 4 (Currently amended): The device for adjusting rotation angles claimed in claim 1, ~~characterized in that further comprising~~ conductor tracks (9) for electrical connection of the magnetic field sensor (5) are located in the stator (2) ~~and in that the conductor tracks (9)~~

~~preferably extend into the receptacle (8), with the conductor tracks (9) in particular being the part that is mounted in the stator (2), for arrangement of the magnetic field sensor (5).~~

Claim 5 (Currently amended): The device for adjusting rotation angles as claimed in claim 4, ~~wherein 1, characterized in that~~ the conductor tracks (9) are ~~in the form of~~ a stamped grid composed of metal, ~~in particular with the stamped grid being injected into the plastic for the injection molded part during the production of the stator (2)~~.

Claim 6 (Currently amended): The device for adjusting rotation angles as claimed in claim 4, ~~wherein 1, characterized in that~~ the conductor tracks (9) are incorporated in the stator (2) in the form of an MID (Molded Interconnected Device) component, ~~for example by means of metalized plastic for the conductor tracks (9)~~.

Claim 7 (Currently amended): The device for adjusting rotation angles as claimed in claim 4, ~~wherein characterized in that~~ the magnetic field sensor (5) is ~~in the form of~~ an encapsulated chip with connections (11), ~~in particular in the form of an SMD (Surface Mounted Device) component, with the connections (11) being soldered to the conductor tracks (9) in order to make electrical contact.~~

Claim 8 (Currently amended): The device for adjusting rotation angles as claimed in claim 4, ~~, characterized in that wherein~~ the magnetic field sensor (5) is ~~in the form of~~ an unencapsulated chip, with bonding wires (24) which, ~~in particular, are welded to the chip being used to make electrical contact with the conductor tracks (9)~~.

Claim 9 (Currently amended): The device for adjusting rotation angles as claimed in claim. 1, ~~characterized in that the exterior of wherein~~ the stator (2) ~~has an exterior, which~~ is ~~in the form of~~ a housing (12), ~~in that latching and or snap action hooks (13) are preferably arranged on the housing (12) in order to mount the stator (2) on a holder (14), in particular with the open side (6) of the receptacle (8) in the stator (2) facing the holder (14)~~.

Claim 10 (Currently amended): The device for adjusting rotation angles as claimed in claim 4, ~~, characterized in that further comprising~~ a printed circuit board ~~which, if required, is provided with a panel for an electrical appliance or the like, in particular with the conductor tracks (9) in the stator (2) making contact with the associated conductor tracks on the printed circuit board, and in that an electronic device (15) for evaluation of the signals produced by the magnetic field sensor (5), which is preferably located on the printed circuit board.~~

Claim 11 (Currently amended): The device for adjusting rotation angles as claimed in claim 1, characterized in that, further comprising on the open side (6) of the stator receptacle (8), the rotor (3) has a recess (18) for the insertion of a handle (16), for example by means of a shaft (17), in order to rotate it manually.

Claim 12 (Currently amended): The device for adjusting rotation angles as claimed in claim 32 4 , characterized in that wherein the handle (16) is located on that a side of the holder (14) which faces away from the housing (12), and in that an opening (19) which corresponds to the open side (6) of the receptacle (8) in the stator (2) is preferably located in the holder (14) , through which opening (19) the shaft (17) passes for insertion into the recess (18).

Claim 13 (Currently amended): The device for adjusting rotation angles as claimed in claim 1, characterized in that wherein the rotation angle positions of the rotor (2) are in the form of latching positions.

Claim 14 (Currently amended): The device for adjusting rotation angles as claimed in claim 9 4 , characterized in that further comprising an electrical switch is located in the housing (12) as a mains switch.

Claim 15 (Currently amended): The device for adjusting rotation angles as claimed in claim 1, characterized in that further comprising the magnet (4) is mounted on an intermediate piece (21) where the magnet (4) is mounted, which intermediate piece and in that the intermediate piece (21) is mounted on the rotor (8), in particular such that it can rotate.

Claim 16 (Currently amended): The device for adjusting rotation angles, in particular of electrical rotary switches (1), as claimed in claim 1 one of the preceding claims, having a stator (2), having a rotor (3) which is mounted on the stator (2) such that it can rotate, such that the rotor (3) can be moved between at least two rotation angle positions, having a magnet (4) which can be moved by means of the rotor (3) and having a magnetic field sensor (5), which is associated with the magnet (4) in order to produce a signal which corresponds to the rotation angle position, characterized in that wherein the magnet (4) is adjustable arranged such that it can be moved in order to adjust so that its position with respect to the rotor (3), can be varied so as to allow adjustment of the position of the magnet (4) when the rotor (3) is in one rotation angle position.

Claim 17 (Currently amended): The device for adjusting rotation angles as claimed in claim 16, characterized in that wherein the magnet (4) is mounted in a receptacle on the rotor (3) such that it can rotate, in particular in a receptacle (20), which receptacle faces the magnetic field sensor (5), in the rotor (3).

Claim 18 (Currently amended): The device for adjusting rotation angles as claimed in claim 16, characterized in that further comprising an adjusting means for adjusting the position of the magnet (4) is arranged between the magnet (4) and the rotor (3), preferably with the adjusting means being in the form of an intermediate piece (21) which is mounted in particular in the receptacle (20) on the rotor (3) such that it can rotate, and with the magnet (4) furthermore preferably being mounted on the intermediate piece (21).

Claim 19 (Currently amended): The device for adjusting rotation angles as claimed in claim 16, characterized in that wherein the magnet (4) is accessible for adjustment from the outside of the stator (2), in particular through a the stator receptacle (8) in the stator (1) which is open on one side (6) and which stator receptacle is used as a rotating bearing for the rotor (3), and with an aperture (22) preferably being located in the rotor.

Claim 20 (Currently amended): The device for adjusting rotation angles as claimed in claim 34 16, characterized in that wherein the aperture (22) extends from that surface of the rotor (3) which faces the open side (6) of the receptacle (8) to the magnet (4) and/or to the intermediate piece (21), and in that a type of Torx, cruciform slot or similar receptacle (23) is located in the magnet (4) and/or in the intermediate piece (21), preferably facing the aperture (22), so as to allow adjustment via the aperture (22) by means of a tool which engages in the receptacle (23), for example by means of a screwdriver.

Claim 21 (Currently amended): The device for adjusting rotation angles as claimed in claim 33 16, characterized in that wherein the adjusted position of the magnet and/or the intermediate piece (4) can be connected is fixed connected to the rotor (3) such that it cannot rotate, in particular by the magnet (4) and/or the intermediate piece (21) being by adhesively bonding, welding[[,]] or casting or the like to the rotor (3) after adjustment.

Claim 22 (Currently amended): The device for adjusting rotation angles as claimed in claim 33 16, characterized in that wherein the magnet (4) is composed of a material which has magnetic particles and plastic, preferably with the material being molded, in particular injection molded, in the form of a body such that the body at the same time represents the intermediate piece (21) and the magnet (4).

Claim 23 (New): The device for adjusting rotation angles as claimed in claim 1 wherein the device is an electrical rotary switch.

Claim 24 (New): The device for adjusting rotation angles as claimed in claim 1 wherein the plastic is a thermoplastic or polyamide and the stator and/or the rotor are/is produced as an injection-molded part and the magnet is a cylindrical permanent magnet which is magnetized two-dimensionally or diametrically.

Claim 25 (New): The device for adjusting rotation angles as claimed in claim 1 wherein the position of the magnet is adjustable relative to the rotor.

Claim 26 (New): The device for adjusting rotation angles as claimed in claim 1 further comprising latching elements which interact between the stator and the rotor such that the rotor is secured in the stator receptacle such that it can not fall out.

Claim 27 (New): The device for adjusting rotation angles as claimed in claim 4 wherein the position of the conductor tracks extend into the stator receptacle, with the conductor tracks being the part that is mounted in the stator, for arrangement of the magnetic field sensor.

Claim 28 (New): The device for adjusting rotation angles as claimed in claim 5 wherein the stamped grid is formed by being injected into the plastic for the injection molded part during the production of the stator.

Claim 29 (New): The device for adjusting rotation angles as claimed in claim 6 wherein the incorporation in the stator in the form of an MID (Molded Interconnected Device) component is by means of metalized plastic for the conductor tracks.

Claim 30 (New): The device for adjusting rotation angles as claimed in claim 7 wherein the encapsulated chip with connections is in the form of an SMD (Surface Mounted Device) component.

Claim 31 (New): The device for adjusting rotation angles as claimed in claim 8, wherein the bonding wires are welded to the chip at the conductor tracks.

Claim 32 (New): The device for adjusting rotation angles as claimed in claim 9, further comprising latching and/or snap-action hooks arranged on the housing in order to mount the stator on a holder with the open side of the stator receptacle facing the holder.

Claim 33 (New): The device for adjusting rotation angles as claimed in claim 18, wherein the adjusting means is an intermediate piece which is mounted in a receptacle on the rotor such that it can rotate, and with the magnet being mounted on the intermediate piece.

Claim 34 (New): The device for adjusting rotation angles as claimed in claim 19, further comprising an aperture located in the rotor.

Claim 35 (New): The device for adjusting rotation angles as claimed in claim 20, the adjustment is permitted via the aperture by means of a tool which engages in the slot.

Claim 36 (New): The device for adjusting rotation angles as claimed in claim 22, wherein the material being molded is injection molded as the intermediate piece and the magnet.